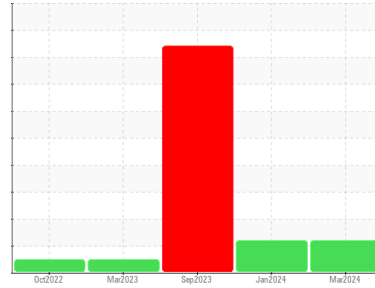




# OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id  
**940003**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

Sodium and/or potassium levels are high.

### ▲ Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0098087</b>	GFL0086743	GFL0080379
Sample Date	Client Info	<b>01 Mar 2024</b>	25 Jan 2024	14 Sep 2023
Machine Age	hrs	<b>11629</b>	11355	10486
Oil Age	hrs	<b>1143</b>	869	10486
Oil Changed	Client Info	<b>Changed</b>	Not Changd	Changed
Sample Status		<b>ABNORMAL</b>	ABNORMAL	SEVERE

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >50	<b>12</b>	17	19
Chromium	ppm ASTM D5185m >4	<b>1</b>	1	3
Nickel	ppm ASTM D5185m >2	<b>0</b>	0	<1
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >9	<b>3</b>	2	0
Lead	ppm ASTM D5185m >30	<b>&lt;1</b>	<1	2
Copper	ppm ASTM D5185m >35	<b>&lt;1</b>	<1	2
Tin	ppm ASTM D5185m >4	<b>&lt;1</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 50	<b>30</b>	48	62
Barium	ppm ASTM D5185m 5	<b>0</b>	0	2
Molybdenum	ppm ASTM D5185m 50	<b>82</b>	89	273
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m 560	<b>519</b>	572	511
Calcium	ppm ASTM D5185m 1510	<b>1512</b>	1595	1656
Phosphorus	ppm ASTM D5185m 780	<b>660</b>	825	729
Zinc	ppm ASTM D5185m 870	<b>922</b>	925	1005
Sulfur	ppm ASTM D5185m 2040	<b>2427</b>	2567	2891

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >+100	<b>19</b>	25	62
Sodium	ppm ASTM D5185m	<b>▲ 777</b>	▲ 1058	▲ 3990
Potassium	ppm ASTM D5185m >20	<b>15</b>	16	▲ 143
Glycol	% *ASTM D2982	<b>---</b>	---	▲ 0.20

## INFRA-RED

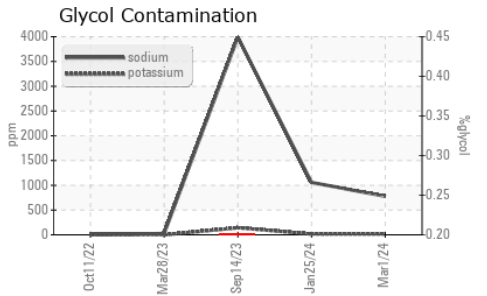
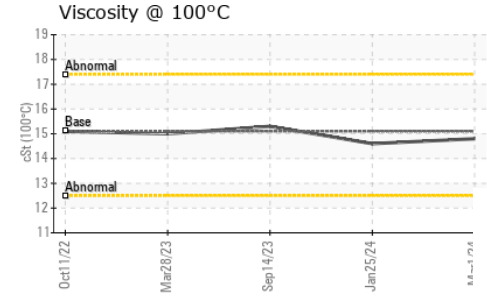
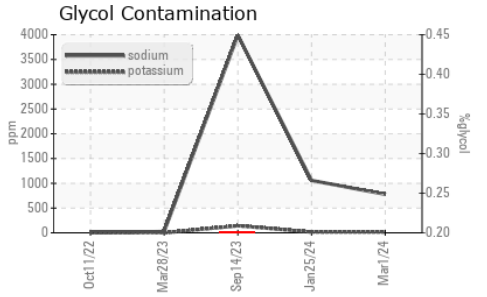
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	<b>0.1</b>	0	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>11.1</b>	9.7	15.4
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>21.4</b>	21.0	26.8

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.8</b>	16.7	17.9
Base Number (BN)	mg KOH/g ASTM D2896 10.2	<b>7.7</b>	10.1	15.9



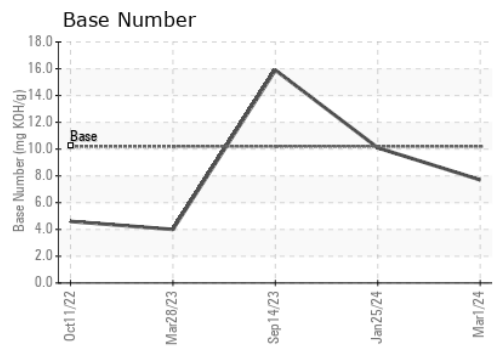
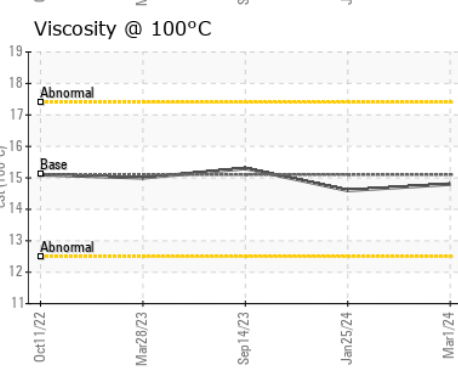
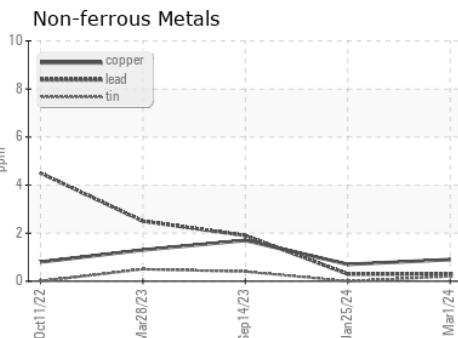
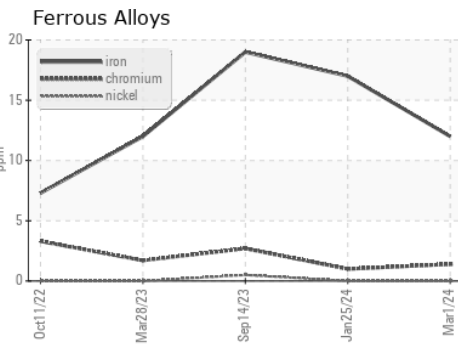
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.8</b>	14.6	15.3

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098087 **Received** : 08 Mar 2024  
**Lab Number** : **06113392** **Tested** : 12 Mar 2024  
**Unique Number** : 10916889 **Diagnosed** : 12 Mar 2024 - Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: Glycol )

**GFL Environmental - 932 - Muskego HC**  
 W144 S6400 College Ct.  
 Muskego, WI  
 US 53150  
 Contact: Brian Schломann  
 brian.schlomann@gflenv.com  
 T: (262)510-4586  
 F:

Certificate L2367  
 To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)